Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application.

Claim 1 (currently amended) A method for forming cell sheets, which comprises coating a support with a polymer or copolymer which has a lower or upper critical solution temperature within the range of 0°C to 80°C, culturing cells attached to the surface thereof ~~at a higher temperature than said lower critical solution temperature~~ or at a lower temperature than said upper critical solution temperature on said coated surface, and detaching and collecting said cell sheet from said coated surface by changing the temperature to a lower temperature than said lower critical solution temperature ~~or at a higher temperature than said upper critical solution temperature~~, wherein said cells are placenta-derived cells comprising cells derived from human postpartum placenta tissue substantially free of blood, wherein said cells self-renew and expand in culture, wherein said cells are multipotent, and wherein said cells grow in about 5% to about 20% oxygen.

Claim 2 (currently amended) The method of claim 1 wherein said polymer or copolymer comprises the reaction products of monomers selected from the group consisting of ~~acrylamide, methacrylamide, N-ethyl acrylamide, N-n-propyl acrylamide, N-n-propyl methacrylamide~~, N-isopropyl acrylamide, ~~N-isopropyl methacrylamide, N-cyclopropyl acrylamide, N-cyclopropyl methacrylamide, N-ethoxyethyl acrylamide, N-ethoxyethyl methacrylamide, N-tetrahydrofurfuryl acrylamide, N-tetrahydrofurfuryl methacrylamide, N,N-dimethyl (meth)acrylamide, N,N-ethylmethyl acrylamide, N,N-diethyl acrylamide), 1-(1-oxo-2-propenyl)-pyrrolidine, 1-(1-oxo-2-propenyl) piperidine, 4-(1-oxo-2-propenyl)-morpholine, 1-(1-oxo-2-methyl-2-propenyl)-pyrrolidine, 1-(1-oxo-2-methyl-2-propenyl)-piperidine, 4-(1-oxo-2-methyl-2-propenyl)-morpholine, und methyl vinyl ether.~~

Claim 3 (original) The method of claim 2 wherein said polymer comprises the reaction product of N-isopropyl acrylamide.

Claim 4 (currently amended) The method of claim 1 wherein said support is comprised of a material selected from the group consisting of polystyrene~~, poly(methyl methacrylate)), polypropylene, polyethylene, vinyl polymers, ceramics, metals, glass and modified glass~~.

Claim 5 (original) The method of claim 1 wherein said cells are comprised of a co-culture comprised of isolated placenta-derived cells comprising cells derived from mammalian placenta tissue substantially free of blood and another mammalian cell of any phenotype.

Claim 6 (original) The method of claim 5 wherein said another mammalian cell comprise a human cell line.

Claim 7 (withdrawn) A method for forming sheets of isolated placenta-derived cells, which comprises coating a support with a polymer which has a lower critical solution temperature of less than about 30°C, culturing said cells at 37°C to confluence, lowering the temperature to 20 °C, and collecting said sheets.

Claim 8 (withdrawn) The method of claim 7 wherein said isolated umbilicus-derived cells comprise cells derived from human postpartum placenta tissue substantially free of blood, wherein said cells self-renew and expand in culture; wherein said cells are multipotent; wherein said cells require L-valine for growth; wherein said cells grow in about 5% to about 20% oxygen.

Claim 9 (withdrawn) The method of claim 7 wherein said polymer comprises the reaction product of N-isopropyl acrylamide.

Claim 10 (withdrawn) The method of claim 7 wherein said support is comprised of a material selected from the group consisting of polystyrene, poly(methyl methacrylate)), ceramics, metals, glass and modified glass.

Claim 11 (withdrawn) A method for therapeutically treating mammalian tissue, said method comprising the steps of

I. providing a cell sheet, the cell sheet formed by a method which comprises coating a support with a polymer or copolymer which has a lower or upper critical solution temperature within the range of 0°C to 80°C, culturing cells attached to the surface thereof at a higher temperature than said lower critical solution temperature or at a lower temperature than said upper critical solution temperature on said coated surface, and detaching and collecting said cell sheet from said coated surface by changing the temperature to a lower temperature than said lower critical solution temperature or at a higher temperature than said upper critical solution temperature,wherein said cells are placenta-derived cells comprising cells derived from human postpartum placenta tissue substantially free of blood, wherein said cells self-renew and expand in culture, wherein said cells are multipotent, wherein said cells require L-valine for growth, and wherein said cells grow in about 5% to about 20% oxygen; and,

II. transplanting the cell sheet to mammalian tissue.

Claim 12 (withdrawn) The method of claim 11 wherein said polymer or copolymer comprises the reaction products of monomers selected from the group consisting of acrylamide, methacrylamide, N-ethyl acrylamide, N-n-propyl acrylamide, N-n-propyl methacrylamide, N-isopropyl acrylamide, N-isopropyl methacrylamide, N-cyclopropyl acrylamide, N-cyclopropyl methacrylamide, N-ethoxyethyl acrylamide, N-ethoxyethyl methacrylamide, N-tetrahydrofurfuryl acrylamide, N- tetrahydrofurfuryl methacrylamide, N,N-dimethyl (meth)acrylamide, N,N-ethylmethyl acrylamide, N,N-diethyl acrylamide), 1-(1-oxo-2-propenyl)-pyrrolidine, 1-(1-oxo- 2-propenyl)-piperidine, 4-(1-oxo-2-propenyl)-morpholine, 1-(1-oxo-2-methyl-2-propenyl)-pyrrolidine, 1-(1-oxo-2-methyl-2-propenyl)-piperidine, 4-(1-oxo-2-methyl-2-propenyl)-morpholine, and methyl vinyl ether.